

City of St. Charles, Missouri

Green Point Rating System Guide



Adopted December 8, 2009

Introduction to the Green Point Rating System (GPRSG)

Purpose. The purpose of the Green Point Rating System (herein after, “GPRS”) is to provide development incentives for building innovation and sustainable practices.

Applicable Zoning Districts. The GPRS shall only be applicable to projects in the following zoning districts: O-I, C-1, C-2, C-3, I-1, I-2, PD-C, PD-I, PD-MU and PD-RF.

Tier System. Each developer utilizing the GPRS shall accumulate Green Points. The number of Green Points accumulated for a project will determine the project Tier. The Tier structure for incentives is as follows:

- (1) Tier 1: 50 to 74 points
- (2) Tier 2: 75 to 100 points
- (3) Tier 3: more than 100 points

Pre-Application Process

Pre-Application Meeting. Prior to submittal of an application to participate in the Green Point Rating System program, the prospective applicant shall attend a pre-application meeting with the Director of Community Development or his designee. At this meeting, the prospective applicant shall provide general information on the proposed development, including site location, existing site conditions, a sketch plan of the proposed development and list of building enhancements.

Thereafter, the Director of Community Development will report to the applicant the Department’s evaluation of the sketch plan and enhancements list with respect to its compliance with the GPRS. The purpose of the pre-application meeting and Department report is to assist the applicant in the preparation of a development plan.

(1) The pre-application meeting is a required informal procedure intended to benefit the prospective applicant by allowing for an exchange of ideas and information, and to provide an opportunity to review the requirements of the GPRS with the prospective applicant. No formal approval from the Director of Community Development or other city staff is required prior to proceeding with the GPRS plan submittal.

- (2) Contents of Sketch Plan. The information that shall be included is as follows:
- (a) conceptual building footprints for all proposed structures;
 - (b) circulation plan, including circulation drives and parking areas; and

- (c) conceptual landscaping plan, open space, common areas and buffer areas between the proposed development and adjacent properties.

Development Plan

Development Plan Submittal Requirements: The Development Plan submitted shall include the following information:

- (1) gross and net acreage (exclusive of streets) of tract;
- (2) building footprints of all proposed structures;
- (3) internal traffic circulation drives and parking areas;
- (4) number of off-street parking spaces required and proposed;
- (5) gross floor area of principal buildings and structures (non-residential uses shall be identified by use type);
- (6) building setbacks from property lines, and between buildings where more than one building is located on a lot;
- (7) proposed location and use of open spaces, including common ground, recreational areas, plazas, and buffer areas;
- (8) landscaping plan including information on the location of tree planting by type (i.e., deciduous/coniferous trees and ornamental trees), shrub masses and ground covers (i.e., grassed areas, ivies, etc.), including landscaping within parking areas, in accordance with the requirements of §§ 156.119(J) et seq.;
- (9) completed GPRSG worksheet that includes all points to be obtained and incentives sought for the project signed by the property owner and sealed by a Professional Architect currently licensed to perform work in State of Missouri; and
- (10) applicant may be required to provide additional clarification or information on the Development Plan as determined by the Director of Community Development or the Planning and Zoning Commission.

Development Plan Review Procedure:

- (1) Submission by Applicant. After the pre-application review meeting, the applicant shall submit four copies of the Development Plan and other information required by section 156.192(A) to the Director of Community Development.
- (2) Staff Review.
 - (a) Completeness of Submittal. Upon receipt of the Development Plan and other applicable documents, the Director of Community Development shall review the documents to determine completeness. If the Director determines that the submittal is incomplete, then the applicant shall be notified of the deficiencies. The Director may delay the processing of the Development Plan until such time as all required information has been provided.

- (b) **Distribution.** As soon as practical after determination that the Development Plan submittal is complete, the Director of Community Development shall distribute copies of the Development Plan to the City Engineer, Fire Chief, Building Code Official and other city staff as appropriate.
- (c) **Staff Review.** The Director of Community Development shall review the Development Plan and solicit comments from other city staff with respect to meeting the requirements of this Chapter, [Chapter 154](#), "Subdivision Regulations" and other applicable ordinances, and with respect to good site planning, both within the tract to be developed and in relation to the surrounding area. The Director, with the input of other city staff, shall identify any deficiencies, site planning, or building code issues. The staff findings shall be submitted to the Planning and Zoning Commission.
- (3) **Resubmission of Development Plan.** The applicant shall resubmit 20 copies of the revised Development Plan incorporating any changes resulting from staff review to the Department of Community Development. Copies of the revised Development Plan shall be forwarded to the Planning and Zoning Commission.
- (4) **Planning and Zoning Commission Action.** The Planning and Zoning Commission shall review the development plan and approve, deny or approve with modifications the plan.

Effect of Approval of Development Plan and Period of Validity:

- (1) All conditions of a GPRS development shall run with the land and shall not lapse as a result of a subsequent change in ownership of the property within the development area.
- (2) No building permits shall be issued until a Development Plan has been approved in accordance with the provisions of [§ 156.192](#).
- (3) No approval of a Development Plan shall be valid for a period longer than 18 months from the date of its initial approval unless within such period a building permit is obtained and construction of a development's foundation is commenced. The Planning and Zoning Commission may grant up to an additional one year extension upon written request, if the application submitted is substantially the same as the initially approved application. At such time as the period of validity of an approved Development Plan lapses, the Development Plan and all uses, terms and conditions thereof are null and void.

Amendments to Development Plan

- (A) *Amendment Request.* The property owner or authorized representative shall submit an amended Development Plan to the Director of Community Development for review. A Development Plan submitted as a follow-up to an approved Development Plan, which deviates in any manner from the approved Development Plan, shall be considered an amendment and be subject to the provisions herein.

(B) Administrative Approval (Minor Amendments): The Director shall evaluate the request for consistency with the approved Development Plan.

(1) If the Director determines that the amended Plan is non-substantive and is not in conflict with the approved Development Plan approved by the Planning and Zoning Commission, the Director may approve said amended Plan without further proceedings.

(2) If the Director determines that the amended Plan is substantially different than the approved Development Plan approved by the Planning and Zoning Commission, the Director shall forward the proposed amended Plan to the Planning and Zoning Commission for its review and recommendation.

(3) No administrative approval authorized by paragraph (B) (1) above shall cause any of the following:

- (a) substantial change in the character of the development;
- (b) substantial increase in the coverage of structures;
- (c) substantial increase in traffic volumes or substantial changes in traffic circulation patterns;
- (d) substantial increase in the demand for public utilities or other public services;
- (e) reduction in required open space or building setbacks from perimeter property lines;
- (f) reduction of required off-street parking or loading spaces; or
- (g) reduction in required pavement widths.

Incentives for Participation in GPRS

Enhanced Site Efficiency

Setback Reductions

District	Standard Front Yard	Tier 1 Front Yard	Tier 2 Front Yard	Tier 3 Front Yard	Standard Side Yard	Tier 1 Side Yard	Tier 2 Side Yard	Tier 3 Side Yard
O-I	25 ft	20 ft	20 ft	15ft	0*	0*	0*	0*
C-1	25 ft	20 ft	20 ft	15ft	0*	0*	0*	0*
C-2	25 ft	20 ft	20 ft	15ft	0*	0*	0*	0*
C-3	25 ft	20 ft	20 ft	15ft	0*	0*	0*	0*
I-1	35 ft**	30 ft**	30 ft**	25 ft**	25 ft*	20 ft*	20 ft*	20 ft*
I-2	35 ft**	30 ft**	30 ft**	25 ft**	0*	0*	0*	0*
District	Standard Rear Yard	Tier 1 Rear Yard	Tier 2 Rear Yard	Tier 3 Rear Yard	Standard Landscape Buffer	Tier 1 Side Yard	Tier 2 Side Yard	Tier 3 Side Yard
O-I	25 ft*	20 ft*	20 ft*	15 ft*	15 ft	10 ft	10 ft	10 ft
C-1	25 ft	0*	0*	0*	15 ft	15 ft	15 ft	15 ft
C-2	0*	0*	0*	0*	20 ft	15 ft	15 ft	15 ft
C-3	0*	0*	0*	0*	25 ft	20 ft	20 ft	20 ft
I-1	30 ft*	25 ft*	25 ft*	25 ft*	50 ft	45 ft	45 ft	45 ft
I-2	0*	0*	0*	0*	50 ft	45 ft	45 ft	45 ft

*Except when adjoining a residential zoning district ** Except when across street from a residential zoning district

Increased Building Heights (except when adjoining a residential district)

District	Standard Maximum Building Height	All Tiers – Maximum Building Height	District	Standard Maximum Building Height	All Tiers – Maximum Building Height
O-I	2.5 stories or 35 feet	3 stories or 45 feet	C-3	3 stories or 45 feet	4 stories or 60 feet
C-1	2.5 stories or 35 feet	3 stories or 45 feet	I-1	3 stories or 45 feet	4 stories or 60 feet
C-2	3 stories or 45 feet	4 stories or 60 feet	I-2	3 stories or 45 feet	4 stories or 60 feet

Incentives for Participation in GPRS

Enhanced Site Efficiency

Miscellaneous design standard incentives:

- C-1 District - Maximum floor area: 3,000 square feet per establishment. GPRS Bonus: Tiers 1 and 2: 4,500 square feet; Tier 3: 6,000 square feet.
- I-1 District - No part of any building, accessory structure, or sign shall be located closer than 100 feet to any residential district boundary. GPRS Bonus: All Tiers: No part of any building, accessory structure, or sign shall be located closer than 75 feet to any residential district boundary.
- I-2 District - No part of any building, accessory structure, or sign shall be located closer than 100 feet to any residential district boundary. GPRS Bonus: All Tiers: No part of any building, accessory structure, or sign shall be located closer than 75 feet to any residential district boundary.

Parking Reductions and Special Considerations:

- All Tiers: Up to 15% of the total number of required parking spaces may be designed for compact motor vehicles. Where possible, these spaces shall be clustered together, located in areas with convenient access to the principal building(s) served, and shall be marked with signs restricting their use to compact motor vehicles. For the purposes of this subsection, compact motor vehicles shall be defined as every motor vehicle 15 feet or less in length.
- All Tiers: A covered bike rack providing a minimum of five (5) bike parking spaces may be used in lieu of one (1) vehicle parking space. Only one such reduction may be utilized per project.
- All Tiers: Each designated carpool (multi-passenger) space shall count as two (2) required standard parking spaces. The number of carpool parking spaces shall not exceed ten-percent of the total required parking spaces on a property.
- All Tiers: Up to ten-percent of the total number of required parking spaces may be designed for motorcycles. Where possible, these spaces shall be clustered together, located in areas with convenient access to the principal building(s) served, and shall be marked with signs restricting their use to motorcycles. For the purposes of this subsection,

motorcycles shall be defined as every motor vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground, but excluding a tractor.

- Tiers 1 and 2: The total parking requirement for a property shall be reduced by ten-percent. Tier 3: The total parking requirements for a property shall be reduced by twenty-percent.
- All Tiers: The total number of required shrubs and trees for parking lot perimeter and interior landscape areas shall be reduced by twenty-five percent.

Expedited Permit Process

All Tiers: Complete building permit applications shall receive an initial review within five (5) business days of receipt.

Building Permit Fee Reduction

There shall be a project fee reduction for the GPRS Bonus for the applicable tier as set forth below:

- GPRS Bonus: Tier 1: Project fee reduction of 15%
- GPRS Bonus: Tier 2: Project fee reduction of 50%
- GRPS Bonus: Tier 3: Project fee reduction of 85%

ST CHARLES GREEN POINT RATING SYSTEM			
Credit Category	Possible Points (33)	Requirement	Verification
1 Site Development			
1.1 Organic Soil Amendments	1	Use a minimum of three cubic yards per 1,000 sq ft of organic material on site. Indicate the type and amount of organic material in the landscape package. Any organic material used shall meet U.S. Composting Council standards or their equivalent.	should be detailed in final plans submitted to permits department
1.2 Native Landscaping	up to 3 points	1 pts for 60% native, 2 pts for 100% native planting and 3 pts for plantings that require no irrigation	should be detailed in final plans submitted to permits department
1.3 Plant New Shade Trees	up to 4 points	.5 point per tree. Awarded for the planting of each deciduous tree, in addition to required trees.	should be detailed in final plans submitted to permits department
1.4 Permeable Paving	up to 4 points	1 points— 25% permeable 2 points— 50% permeable 3 points— 75% permeable 4 points— 100% permeable	excludes building footprint. should be detailed in final plans submitted to permits department
1.5 Provide for On-Site Water Catchment / Retention	3	Install Rainbarrel, Trench Drain, Rainwater Harvesting Tank, or other approved retention/detention measure	should be detailed in final plans submitted to permits department
1.6 High Efficiency Irrigation	up to 2 points	1 point— 75% efficiency rating 2 points— 90% efficiency rating Install drip, subsurface drip, or low-flow sprinklers in place of standard sprinkler systems for all landscape applications. Upgrade to new "smart" (weather-based) irrigation controllers	should be detailed in final plans submitted to permits department
1.7 Reduced Surface Lighting	1	1 Green Point shall be allowed for providing 25% less surface lighting than would normally be required.	should be detailed in final plans submitted to permits department
1.8 No Fertilizer Used for Vegetative Establishment	1	1 Green Point shall be allowed for providing a landscaping plan that assures vegetative establishment without the use of fertilizers.	should be detailed in final plans submitted to permits department
1.9 Increased Public Transit Service	1	1 Green Point shall be allowed for adding a stop along public transit routes for a new development.	should be detailed in final plans submitted to permits department
1.10 Stormwater Credits	up to 3 points	1 Green Point shall be awarded for each stormwater credit achieved as outlined in Section 4 of the Stormwater Code	should be detailed in final plans submitted to permits department
1.11 Vegetated Roof	up to 6 points	Green Points shall be awarded for providing vegetation on any roof equal or less than 2:12 pitch. 4 pts for roofs up to 10,000 sq ft and 6 points for roofs exceeding 10,000 sq ft	should be detailed in final plans submitted to permits department
1.12 Reduced Heat Island Effect	2	2 pts shall be awarded for using high albedo surfaces for 50% of total combined area of roof, drives and parking lot	should be detailed in final plans submitted to permits department
1.13 Preferred Parking	1	1 pt shall be awarded for providing preferred parking equal to 3% of parking capacity for carpools and /or fuel efficient vehicles	should be detailed in final plans submitted to permits department
1.14 Dedicated Bikeway, Bike Rack and/or Changing Rooms	1	1 pt shall be awarded for providing a dedicated bikeway, bike rack and/or changing rooms	should be detailed in final plans submitted to permits department

Credit Category	Possible Points (9)	Requirement	Verification
2 Waste Management			
2.1 Reuse of Existing Buildings	up to 3 points	2 points—Save 50% of exterior walls (external sheathing and framing) 3 points—Save 75% of exterior walls (external sheathing and framing)	Inspected during plan review and site inspection by city inspector.
2.2 New Construction Waste Recycling	up to 2 points	1 pts—divert 75% of construction waste generated on site 2 pts—divert 85% of construction waste generated on site	Complete the Construction Waste Recycling Tracking Spreadsheet and include verification of hauler weight tickets, receipts, and a sign-off from recycling provider to affirm that the requirements have been met.
2.3 Install Built-In Recycling Center	1	1 point - must include all 5 types of recyclable material	should be detailed in final plans submitted to permits department
2.4 Use Recycled Materials	up to 3 points	1 point - 25% of building and sewer materials recycled 2 points - 50% of building and sewer materials recycled 3 points - 75% of building and sewer materials recycled	should be detailed in final plans submitted to permits department
Credit Category	Possible Points (9)	Requirement	Verification
3 Energy Efficiency			
Weatherization			
3.1.1 Wall Insulation	1	2" x 6" wall studs, R-19 minimum wall cavity insulation, plus R- 5 insulative wall sheathing must be used.	Checked during plan review and during insulation inspection
3.1.2 Ceiling Insulation	1	a minimum ceiling insulation R-value of 49 must be attained	Checked during plan review and during insulation inspection
3.1.3 Basement/Foundation Insulation	1	A minimum R-10 insulation must be installed on the exterior of the full height of a basement or foundation wall	Checked during plan review and during insulation inspection
3.1.4 Insulated Pre-cast Concrete Foundation	1	A panelized foundation wall system that has a minimum R-5 insulation integral to the panel must be used. Pre-cast foundation wall panels allow a foundation wall to be built with fewer materials than conventional site-cast foundation walls, and the integral insulation helps reduce heat loss through the wall.	Checked during plan review and during insulation inspection
3.1.5 Insulated Concrete Forms	1	An insulated concrete form system must be used for the foundation. The foam forms stay in place and add to the energy efficiency of the wall.	Checked during plan review and during insulation inspection
3.2 Windows	up to 4 points	Up to 2 points—National Fenestration Rating Council (NFRC): Rated window with maximum U-value of 0.35 or lower: (.5 point for each window) Up to 2 points (an additional)—NFRC Rated Window with Maximum Solar Heat Gain Coefficient (SHGC) of 0.55 or lower. (.5 point for each window). The SHGC requirement does not apply to south-facing glazing.	Checked during rough inspection. The inspector must be able to clearly identify the U-value and SHGC ratings and window type by the National Fenestration Rating Council's stamp or the manufacturer's label. Applicant must show the number of windows to be upgraded on building plans.
Credit Category	Possible Points (7)	Requirement	Verification
3 Energy Efficiency			
3.3 HVAC Commissioning	4	The following tests are required for HVAC commissioning: Duct Leakage Testing Combustion Testing Air conditioning Charge Duct System Flows and Pressures	A Building Performance Institute (BPI) certified professional must provide documents indicating the results of the tests shown above and certify that the systems are operating at its rated efficiency level.
3.4 Ground Source Heat Pumps	3	Install ground source heat pumps	Geothermal design specifications, energy calculations (heating/cooling load bin analysis), and engineer stamped plans must be submitted during plan review.

Credit Category	Possible Points (12)	Requirement	Verification
3 Energy Efficiency			
3.5 Direct Vent Combination Space/Water Heating System	1	Combination systems merge space heating and domestic hot water into a single appliance. Combination systems can reduce the first cost of installing high-efficiency equipment. Domestic hot water is heated directly and space heating is accomplished with a hot water heat exchanger coil that pipes water to the forced air heating system.	Checked during plan review. Inspected in field
3.6 Zoned, Hydronic Radiant Heating	1	Use a hydronic heating system that circulates hot water through radiant floor panels, wall radiators, or baseboard convectors located in different areas or zones of the house. Hydronic heating systems improve comfort and energy efficiency by reducing thermal stratification and eliminating duct heat loss.	Checked during plan review. Inspected in field
3.7 Passive Cooling	2 to points	Points will be awarded for passive cooling systems using any two or more of these techniques (one point per option): <ul style="list-style-type: none"> - Exterior vertical shading devices for east- and west-facing glass. - Reflective films or glass on east- and west-facing windows. - Radiant, heat-reflective barriers installed in the attic space. - Landscaping that shades east- and west-facing windows during the cooling season (June to September). - South window overhang sized to effectively shade the window (from June to September). 	Checked during plan review. Indicate the passive cooling design features on the building permit plan, for option 5 above; submit a calculation that demonstrates overhangs have been designed in accordance with the equation above for all south-facing glass.
3.8 Whole Building Fan	1	Install a whole-building fan with an insulated cover that creates an airtight seal between attic and occupied space when the fan is off. Whole-building fans work by replacing warm indoor air with cooler outdoor air.	Checked during plan review and at final inspection
3.9 Evaporative Cooling	2	Modern evaporative coolers use four to five times less energy than efficient conventional air conditioners, and result in enhanced air quality as well.	Checked during plan review and at final inspection
3.10 Water Heating	1	Tankless water heaters, also called instantaneous or demand water heaters, provide hot water only as it is needed. Tankless water heaters heat water directly without the use of a storage tank, and deliver a constant supply of hot water. Gas-fired models must have a minimum Energy Factor of 0.82 to achieve this credit	Checked during plan review and at final inspection
3.11 Point-of-Use Water Heater	1	Point-of-use water heating uses a mini-water heater at remote fixtures to reduce the energy and water use associated with long piping runs. They are sized to supply hot water to a single fixture such as a sink.	Checked during plan review and at final inspection
3.12 Install AC with Non-HCFC Refrigerants	2	Install an AC unit that uses the alternative to R-22 refrigerant, R-410A	Checked during plan review and at final inspection
3.13 Install Heat Recovery Ventilation Unit (HRV)	1	Install a unit designed into the HVAC system to capture heat from exhausted air from the building.	Checked during plan review and at final inspection

Credit Category	Possible Points (14)	Requirement	Verification
3 Energy Efficiency			
Lighting and Appliances			
3.14 ENERGY STAR Advanced Lighting Package	3	High-Use Rooms, hall(s)/stairway(s) 50 percent of total number of fixtures Medium/Low-Use Rooms and all other rooms 25 percent of total number of fixtures Outdoor lighting affixed to the structure or free-standing pole(s) except for landscape and solar lighting 50 percent of total number of fixtures including all flood lighting	ENERGY STAR ALP criterion is estimated to be inspected by a HERS rater, if new construction, and by a city inspector for remodels and additions. Place a signed copy of the Verification of Accountability by Responsible Party found at the end of the Green Points application in the permit sleeve before final inspection.
3.15 Efficient Light Controls	up to 2 points	1 point—4 control devices or more per 1000 sf 2 points—6 control devices or more per 1000 sf	Specification of efficient light controls with the number installed will be checked by a HERS rater or city inspector during final inspection. Place a signed copy of the Verification of Accountability by Responsible Party found at the end of the Green Points application in the permit sleeve before final inspection.
3.16 Energy Efficient Appliances	up to 3 points	1 points—Install ENERGY STAR rated refrigerator/freezer 1 points—Install ENERGY STAR rated clothes washer/dryer 1 point—Install ENERGY STAR rated dishwasher	Appliance ENERGY STAR labels must remain on the equipment for inspection by a HERS rater or city inspector during final inspection. Place a signed copy of the Verification of Accountability by Responsible Party found at the end of the Green Points application in the permit sleeve before final inspection.
Solar			
3.17 Passive Solar Heating Design	2	0.5 pt per approved passive solar heating design strategy implemented or within approved drawing set	Submit modeling documentation with the designer or architect's signature verifying calculations of the solar heat gain fraction
3.18 Solar Thermal Domestic Hot Water System	2	Provide sufficient unshaded south-facing roof area for collectors and space in a mechanical equipment room for the additional hot water storage tank. Inspected during plan review. Applicant must submit calculations and diagrams for solar water heating system.	Inspected during rough plumbing inspection
3.19 Controllability of Systems	2	2 pts shall be awarded for providing 60% of employees with individual lighting and thermal controls	measure must be included on design plans and inspected during plan review.
4 Water Efficiency – High Efficiency Fixtures			
Credit Category			
Possible Points (10)			
Requirement			
Verification			
4.1 Water Efficiency- High Efficiency Fixtures	1	50% of all fixtures	Inspected during final plumbing inspection
	2	75% of all fixtures	Inspected during final plumbing inspection
	3	100% of all fixtures	Inspected during final plumbing inspection
4.2 Pre-Plumb for Graywater Conversion	2	Install Graywater plumbing to separate waste pipes from sinks, showers, and washing machines from the toilet waste	Inspected during final plumbing inspection
4.3 Treat Wastewater On-site to Tertiary Standards	5	5 pts shall be awarded for treating wastewater on site to tertiary standards and reusing water for non-potable purposes	should be detailed in final plans submitted to permits department
5 Material Efficient Framing and Structure			
Credit Category			
Possible Points (2)			
Requirement			
Verification			
5.1 24" On-Center Framing	1	24" On-Center Framing	measure must be included on design plans and inspected during plan review.
5.2 Insulated Headers	1	Insulated Headers	measure must be included on design plans and inspected during plan review.

Credit Category	Possible Points (6)	Requirement	Verification
5 Material Efficient Framing and Structure			
5.3 Energy Efficient Roof Trusses	1	Energy Efficient Roof Trusses	measure must be included on design plans and inspected during plan review.
5.4 HVAC Ducts within Conditioned Spaces	1	HVAC Ducts within Conditioned Spaces	measure must be included on design plans and inspected during plan review.
5.5 Structural Insulated Panels (SIPs)	up to 2 points	1 points—at least 50 percent of exterior walls 2 points—at least 50 percent of exterior walls and roof	The applicant must provide plans or designs certified by a structural engineer. Inspected in field.
5.6 Structural Alternatives to Woods	up to 2 points	1 points—at least 50 percent of exterior walls 2 points—at least 50 percent of exterior walls and roof	The applicant must provide plans or designs certified by a structural engineer. Inspected in field.
Credit Category	Possible Points (10)	Requirement	Verification
6 Sustainable Products			
6.1 Sustainable Wood Products	up to 3 points	1 points—2 BF (board feet) of FSC lumber per square foot (SF) of floor area (2 BF/SF) 2 points—3 BF of FSC lumber per SF of floor area (3 BF/SF) 3 points—50 percent or more of dimensional lumber in total BF is FSC, excluding engineered wood products	The builder or responsible party will sign Verification of Accountability by Responsible Party in the Green Points application declaring that all tropical wood, if used, is FSC-certified. Also a copy of the FSC Chain of Custody certification and/or invoice from supplier. Place in building permit sleeve before final inspection.
6.2 Environmentally Preferred Materials + Locally Sourced Products	up to 4 points	Use products that are environmentally preferable and/or extracted, processed, and manufactured within 250 miles of the building ("local"). For each component, earn 0.5 points for each product specification type met (Environmentally Preferable Product [EPP] Specifications, Emission Specifications, and/or "Local"). Except as otherwise noted in Chart B, 90 percent of the component, by weight or volume, must meet the specification shown.	The applicant must sign the Verification of Accountability by Responsible Party in the Green Points application. , declaring that the materials meet the criteria in Chart B, and place the form in building permit sleeve before final inspection.
6.3 Incorporate Recycled Flyash in Concrete	1	Typically, 15%-50% of cement can be replaced with flyash in residential concrete mixes, however it must be cured longer than standard concrete.	Checked during plan review and at final inspection
6.4 Use Recycled Content Aggregate	1	1 point shall be awarded for using recycled aggregate in concrete mix	Checked during plan review and at final inspection
6.5 Use Recycled Asphalt	1	1 point shall be awarded for using recycled aggregate in asphalt	Checked during plan review and at final inspection
Credit Category	Possible Points (6)	Requirement	Verification
7 Indoor Air Quality			
7.1 Energy Star's Indoor Air Quality Package Requirements	3	For this point option, all of the requirements of EPA's ENERGY STAR Indoor Air Package must be met.	A HERS Rater must perform a visual inspection of installed measure(s) and relevant documents/test results; to affirm compliance and place an IAP Certificate in the building permit sleeve before final inspection.
7.2 Mechanical Ventilation	up to 3 points	1 point—Bath exhaust fans with timer or humidistat controls 1 point—Ventilation integrated into the HVAC system 1 points—Incorporating heat recovery ventilation	Inspected during final mechanical inspection.

Credit Category	Possible Points (5)	Requirement	Verification
7 Indoor Air Quality			
7.3 Attached Garage Exhaust Fan	1	Install an exhaust fan on the opposite wall from the door to the house. It must be wired to an electric garage door to run after the door has been opened or closed or put on a timer. A garage exhaust fan creates a healthier indoor environment by reducing the amount of contaminants that can enter the house from the garage.	Inspected during rough-in and final stages of construction.
7.4 Low VOC Interior Products	2	2 pts shall be awarded for the exclusive use of low VOC carpeting, paints and sealants	Checked during plan review and at final inspection
7.5 Chemical and Pollutant Source Control	2	2 pts shall be awarded for creating a sealed and separate copy room	Checked during plan review and at final inspection
7.6 No Smoking	1	1 point shall be awarded for not allowing smoking within 25 feet of any opening in building.	Checked at final inspection
Credit Category	Possible Points (1)	Requirement	Verification
8 Building Owner Information			
8.1 Operations and Maintenance Binder	1	The builder shall provide a binder to be left in the building for future occupants that includes the following four items: The Green Points checklist Home Energy Audit or HERS certificate, whichever applies The equipment manufacturers' installation manuals, except for manuals required to be affixed to the equipment, for all installed equipment, fixtures, and appliances	Inspected during final inspection.
Credit Category	Possible Points (10)	Requirement	Verification
9 Design Process and Innovation			
9.1 Green Building Consultant	1	Consultants certified through Green Points Certification, Green Advantage, LEED™ Accredited Professional	A Green Building consultant must sign the application as a responsible party and provide proof of certification or accreditation during building plans submittal.
9.2 Energy Star Builder	1	For this point option, the general contractor must be an ENERGY STAR builder. Builders can sign up on the ENERGY STAR Web site free of charge.	The builder must sign the application as a responsible party and the builder's name must be listed on ENERGY STAR's Web site.
9.3 Innovation Points	up to 8 points	The applicant MUST prepare a written submittal that includes: The intent of the innovation measure(s) The proposed requirement for compliance The proposed documentation to demonstrate compliance A description and an estimate of the benefit/impact provided by the proposed measure	Applicant must provide the above documentation in writing and any other supporting documentation, such as an evaluation report or specifications to quantify performance. This information is submitted with building permit plans and will be awarded during city staff's evaluation and determination of measures proposed.
Possible Points	135		Total Points Achieved
Notes			
1 Make sure that building measures are easily measured so that a check box review methodology can be utilized by the municipality reducing man hours needed for reviews			
2 Issues indigenous to St Charles have been prioritized by allocating substantial points in the following categories (stormwater, wastewater, energy, weatherization, workforce housing)			
3 These credits have been informed by the Boulder, Santa Monica, and Santa Rosa Green Points Guidelines, the City of St. Charles and Buro Happold			

Shrubs Native to Missouri

American Beautyberry (*Callicarpa americana*)
American Filbert; Hazelnut (*Corylus americana*)
American jointweed (*Polygonella americana*)
Arrowwood (*Viburnum dentatum*)
Black Chokeberry (*Aronia melanocarpa melanocarpa*)
Black Haw Viburnum (*Viburnum prunifolium*)
Blackberry; Dewberry; Black Raspberry (*Rubus* sp.)
Bladdernut (*Staphylea trifolia*)
Buttonbush (*Cephalanthus occidentalis*)
Corkwood (*Leitneria floridana*)
Deciduous Holly (*Ilex decidua*)
Elderberry (*Sambucus canadensis*)
Flameleaf Sumac (*Rhus copallina*)
Fragrant Sumac (*Rhus aromatica*)
Golden Currant (*Ribes odoratum*)
Gray Dogwood (*Cornus racemosa*)
Indian Cherry (*Rhamnus caroliniana*)
Lead Plant (*Amorpha canescens*)
Leatherwood (*Dirca palustris*)
Missouri Gooseberry (*Ribes missouriense*)
Nannyberry viburnum (*Viburnum lentago*)
New Jersey Tea (*Ceanothus americanus*)
Ninebark (*Physocarpus opulifolius*)
Pasture Rose (*Rosa carolina*)
Prairie Willow (*Salix humilis*)
Roseshell Azalea (*Rhododendron prinophyllum* (roseum))
Rusty Blackhaw (*Viburnum rufidulum*)
Serviceberry (*Amelanchier arborea*)
Shrubby St. John's Wort (*Hypericum prolificum*)
Smooth Sumac (*Rhus glabra*)
Spicebush (*Lindera benzoin*)
Strawberry Bush (*Euonymus americanus*)
Vernal Witchhazel (*Hamamelis vernalis*)
Virginia Sweetspire (*Itea virginica*)
Wahoo (*Euonymus atropurpureus*)
Wild Hydrangea (*Hydrangea arborescens*)

Winterberry Holly (*Ilex verticillata*)
Witch Hazel (*Hamamelis virginiana*)

Trees Native to Missouri

American Basswood (*Tilia americana*)
American Holly (*Ilex opaca*)
American Hornbeam (*Carpinus caroliniana*)
American Smoketree (*Cotinus obovatus*)
Baldcypress (*Taxodium distichum*)
Black Cherry (*Prunus serotina*)
Black Gum (*Nyssa sylvatica*)
Black oak (*Quercus velutina*)
Bur Oak (*Quercus macrocarpa*)
Cockspur Hawthorn (*Crataegus crus-galli*)
Downy Hawthorn (*Crataegus mollis*)
Eastern Red Cedar (*Juniperus virginiana*)
Eastern Redbud (*Cercis canadensis*)
Flowering Dogwood (*Cornus florida*)
Fringetree (*Chionanthus virginicus*)
Green Hawthorn (*Crataegus viridis*)
Hackberry (*Celtis occidentalis*)
Kentucky Coffeetree (*Gymnocladus dioica*)
Littlehip hawthorn (*Crataegus spathulata*)
Ohio Buckeye (*Aesculus glabra*)
Ohio Spiderwort (*Tradescantia ohimensis*)
Overcup Oak (*Quercus lyrata*)
Pagoda Dogwood (*Cornus alternifolia*)
Parsley Hawthorn (*Crataegus marshallii*)
Pawpaw (*Asimina triloba*)
Pecan (*Carya illinoensis*)
Persimmon (*Diospyros virginiana*)
Pin Oak (*Quercus palustris*)
Red Maple (*Acer rubrum*)
Red oak (*Quercus rubra*)
River Birch (*Betula nigra*)
Roughleaf Dogwood (*Cornus drummondii*)
Sassafras (*Sassafras albidum*)
Shagbark hickory (*Carya ovata*)
Shingle oak (*Quercus imbricaria*)
Shumard oak (*Quercus shumardii*)

Sugar maple (*Acer saccharum*)
Swamp chestnut oak (*Quercus michauxii*)
Sweetgum (*Liquidambar styraciflua*)
Sycamore (*Platanus occidentalis*)
Tulip Poplar (*Liriodendron tulipifera*)
Wafer Ash (*Ptelea trifoliata*)
Washington Hawthorn (*Crataegus phaenopyrum*)
Western Soapberry (*Sapindus drummondii*)
White oak (*Quercus alba*)
Wild Plum (*Prunus americana*)
Willow Oak (*Quercus phellos*)
Yellowwood (*Cladrastis kentukea*)